Agri-Informatics (AAM/BPM-205)

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Definition

E-agriculture involves the conceptualization, design, development, evaluation and application of innovative ways to use ICTs in the rural domain, with a primary focus on agriculture.

Provisions of standards, norms, methodologies, and tools as well as development of individual and institutional capacities, and policy support are all key components of e-agriculture.

ICT is used as an umbrella term encompassing all information and communication technologies including devices, networks, mobiles, services and applications; these range from innovative Internet-era technologies and sensors to other pre-existing aids such as fixed telephones, televisions, radios and satellites.

Introduction

Agriculture is increasingly knowledge-intensive and today's farmers live in a challenging environment. There is a continuing need to provide the right information to the people who need to make the decisions that make the difference to their livelihoods and thereby ensure the food security of the ever growing population. Providing such knowledge can be challenging, however, because the highly localized nature of agriculture means that information must be tailored specifically to local conditions.

ICTs have been a significant contributor to growth and socio-economic development in business sectors, countries and regions where they are well adopted and integrated. The large adoption and integration of ICTs have improved service delivery, created new jobs (while making some older ones less relevant), generated new revenue streams and saved money.

The rapid growth of mobile phone ownership globally provides new avenues to share and access information. Now every family has access to mobile phone, which can be used to provide right information to right person.

Introduction

E-agriculture has been one of the main action lines of The World Summit on the Information Society (WSIS) implementation process. During the WSIS+10 high-level events in 2014, the meeting identified six major action points for e-agriculture.

1) As part of national ICT strategies, foster the development and implementation of national e-agriculture strategies focusing on providing reliable and affordable connectivity and integrating ICTs in rural development to support food security and hunger eradication.

2) Foster collaboration and knowledge sharing in agriculture via electronic communities of practice, including the e-agriculture Community, in order to showcase and promote models, methodologies, good practices and the adoption of Open Access and interoperability standards, for effective and equitable use of ICTs for sustainable agriculture and rural development.

3) Promote the creation and adaptation of content including in local languages and contexts from reliable and trusted sources, including, ensuring equitable and timely access to agricultural knowledge by resource-poor men and women farmers, foresters and fisher folk in rural areas.

Introduction

4) Foster digital literacy of institutions and communities in rural and remote areas taking into consideration local needs and constraints by providing appropriate learning opportunities for all which will enhance individual and collective decision-making skills.

5) Promote the use of ICTs to reinforce the resilience capacity of states, communities and individuals to mitigate and adapt to natural and man-made disasters, food chain challenges, socio-economic and other crises, conflicts and transboundary threats, diseases, and environmental damages.

6) Promote Public-Private Partnerships in cooperation with relevant CSOs/NGOs, cooperatives, farmer organizations, academia, research institutions in the agricultural sector (which also includes forestry and fishery) for inclusive, efficient, affordable and sustainable ICT services and initiatives in agriculture and rural development which will promote the wide scale use of ICT and foster sustainable agri-business models.

Components: Enabling Environment

Leadership and Governance

Legislation, Policy and Compliance

Strategy and Investment

Infrastructure

ICT Services and Applications

Standard and Interoperability

Content, Knowledge Management and Sharing

Workforce and Capacity Development

Concept

E-Agriculture: Vision

Role of ICT in Agriculture